

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF OHIO

CITY OF DAYTON,

*Plaintiff,*

*-against -*

3M COMPANY, f/k/a Minnesota Mining and  
Manufacturing Co., BUCKEYE FIRE EQUIPMENT  
COMPANY, CHEMGUARD, INC., TYCO FIRE  
PRODUCTS L.P., and NATIONAL FOAM, INC.,

*Defendants.*

COMPLAINT FOR A CIVIL  
CASE

Case No: \_\_\_\_\_

JURY TRIAL DEMANDED

Plaintiff, City of Dayton, by and through its attorneys NAPOLI SHKOLNIK PLLC, PLEVIN & GALLUCCI COMPANY, LPA and DYER, GAROFALO, MANN & SCHULTZ, as and for its Complaint against Defendants 3M Company, f/k/a Minnesota Mining and Manufacturing Co., Buckeye Fire Equipment Company, Chemguard, Inc., Tyco Fire Products L.P., and National Foam, Inc. alleges as follows:

**INTRODUCTION**

1. Plaintiff, the City of Dayton (hereinafter the “City”), brings this action against 3M Company, f/k/a Minnesota Mining and Manufacturing Co., Buckeye Fire Equipment Company, Chemguard, Inc., Tyco Fire Products L.P. (successor-in-interest to Ansul Co.) and National Foam, Inc. to recover the substantial past and future damages for the treatment and removal of the contamination of its public drinking water supply wells by treating the water in those wells to eliminate contamination caused and/or created by Defendants’ products, and to protect the public health, safety, welfare, and the environment.

2. Defendants manufactured, marketed, and sold aqueous film-forming foam (“AFFF”), a firefighting product used to control and extinguish aviation, marine, fuel, and other flammable liquid fires.

3. Defendants’ AFFF contained perfluorooctanoic acid (“PFOA”) and/or perfluorooctane sulfonic acid (“PFOS”), and/or contained the precursors of PFOS and PFOA.

PFOA and PFOS are toxic, do not biodegrade, are persistent in the environment, move easily through soil and groundwater, absorb into concrete, and pose a significant risk to human health and safety.

4. PFOA and PFOS are associated with a variety of illnesses, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), and hypercholesterolemia. The chemicals are particularly dangerous for pregnant women and young children. Defendants were aware since the 1960’s and 70’s that PFOA and PFOS were toxic, do not biodegrade, are persistent in the environment, move easily through soil and groundwater and pose a significant risk to human health and health and safety, but elected to use these chemicals and not warn their customers, placing profits over human health.

5. In the early 1960’s, 3M and the United States Naval Research Laboratory developed AFFF to extinguish jet fuel fires, which are largely impervious to water, by smothering them. 3M’s AFFF, which is produced through a 3M process called electrochemical fluorination, contained PFOS.

6. 3M is the only manufacturer who used the electrochemical fluorination process, and therefore, produced the only AFFF that contained PFOS, as opposed to PFOA.

7. Therefore, if PFOS is identified at a site where AFFF was used, the AFFF is a 3M product. Other formulations of AFFF manufactured by the non-3M Defendants are synthesized through telomerization and contain PFOA, but not PFOS.

8. In 1967, the Department of Defense (“DoD”) first issued military specification Mil-F-24385 (“Mil Spec”), which included the DoD’s requirements for AFFF liquid concentrate fire extinguishing agents. The Mil Spec covered “the requirements for [AFFF] liquid concentrate fire extinguishing agent consisting of fluorocarbon surfactants and foam stabilizers.”

9. The Mil Spec does not include any requirements regarding the chemical characteristics of the “fluorocarbon surfactants” in Mil Spec compliant AFFF.

10. Upon information and belief, instructions, labels and material safety data sheets were provided with the AFFF by Defendants, which, at least at significant times, did not fully describe the health and environmental hazards of AFFF which Defendants knew or should have known.

11. Upon information and belief, Defendants had known of these health and environmental hazards for years, yet failed to warn the users and other sensitive receptors, such as public water providers. Defendants elected to include PFOA and/or PFOS in their AFFF; there was no requirement.

12. Civilian and military airports, fire departments and industrial facilities, unaware of the environmental and health risk and hazards of using Defendants’ AFFF, used AFFF containing PFOA and PFOS for decades for firefighting and training. These sites have been linked to the widespread contamination of surface and groundwater, as well as public drinking water wells, with PFOA, PFOS, and other perfluorinated chemicals (“PFCs”) throughout the country.

13. Defendants' AFFF has been used for almost 50 years at the Wright-Patterson Air Force Base ("WPAFB"). During routine training exercises, AFFF has been sprayed directly on the ground and/or tarmac at several fire training areas, allowing PFOA/PFOS to travel to the surrounding groundwater, causing contamination of various City water supply wells, in various locations, in varying amounts, at various times.

14. In addition to routine training for personnel, additional releases of AFFF have occurred at the WPAFB through testing of the equipment, false alarms, equipment malfunctions, and other incidental releases in the hangers, fire stations and other locations.

15. The City also owned and operated its own Fire Training Center ("FTC") where it trained firefighters to use AFFF, causing additional releases of the Manufacturing Defendants' AFFF containing PFOA and PFOS.

16. Once the Defendants' AFFF was released into the environment, whether on the ground, into the air, or through a wastewater treatment system, the PFOS/PFOA from the WPAFB and FTC eventually contaminated the City's water supply.

17. There is no natural sink for the Manufacturing Defendants' AFFF containing PFOS and PFOA. Except for incineration above 10,000 degrees, Defendants' PFOS and PFOA eventually accumulate in the water and all living organisms- including the blood and organs of humans.

18. Defendants knew or should have known that PFOA and PFOS are highly soluble in water, extremely mobile, persistent, and very likely to contaminate drinking water wells and present significant risks to human health and welfare if released into the environment.

19. Nevertheless, Defendants manufactured, marketed, and sold their AFFF with the knowledge that PFOS and PFOA would be released into the environment in firefighting training and rescue exercises, inadvertent releases, false alarms, as well as in emergencies.

20. Plumes of PFOA and PFOS can persist in underground aquifers for many decades. Once the plume reaches a well, it continues to contaminate the water drawn from that well. The most viable technologies to remove PFOS and PFOA (and other PFCs) from the groundwater are granulated activated carbon (“GAC”), reverse osmosis, and ion exchange.

21. The City brings this action to recover damages incurred and to be incurred by the City in investigating, monitoring, remediating, treating and otherwise responding to the PFOA/PFOS water contamination to stem the threat to public health and the environment caused by Defendants’ AFFF products, and ensure the cost of the water treatment be borne by the polluters; not the City of Dayton and its hard working, rate-paying residents.

### **THE PARTIES**

22. Plaintiff has its principal place of business located at 101 W. 3<sup>rd</sup> Street in Dayton, Ohio.

23. Through the City’s Water Department, the City provides high quality, safe, potable water to over 400,000 people from the groundwater.

24. Groundwater is the sole source of drinking water for the region.

25. The City’s service area includes most of Montgomery County, including Dayton, Kettering, Riverside, Centerville, Trotwood, Harrison Township, Brookville, customers in Greene County, and extends north to serve Dayton International Airport, over 65 sq. miles. Its lines carry an average of 65 MGD (million gallons/day).

26. Dayton operates two (2) well fields that contain dozens of supply wells, two (2) Water Treatment Plants, one (1) lime recovery facility, two (2) main pumping stations, six (6) Booster Pumping Stations and eleven (11) Water Storage Facilities.

27. Defendants' AFFF products containing PFOA and PFOS, in unchanged form, were discharged into the environment through the foreseeable training, storage and use of the AFFF at the WPAFB and FTC.

28. Defendants' AFFF products containing PFOA and PFOS contaminated the groundwater supply from which Plaintiff draws water for its customers.

29. After PFOS and PFOA contamination was discovered at the WPAFB in the summer of 2016, the City proactively tested its wells that were closest to the FTC, those in the Tait's Hill portion of the Mad River Wellfield ("Tait's Hill").

30. Sampling in October 2016 confirmed the presence of PFOA and PFOS in the Tait's Hill portion of the Mad River Well Field.

31. Additional proactive testing evidenced more contaminated wells in the Huffman Dam portion of the Mad River Well Field ("Huffman Dam"). In total, the City has been forced to shut down approximately fourteen (14) supply wells due to the PFOS and PFOA groundwater contamination. The City is actively monitoring the PFOS and PFOA contamination and its risk to its water supply.

32. Consequently, Plaintiff has incurred and will incur expenses to deal with the contaminated water and infrastructure modifications to ensure each residential and commercial property is served clean and safe water.

33. Plaintiff will also incur future sampling costs for PFOA and PFOS.

34. Defendant 3M Company (f/k/a Minnesota Mining and Manufacturing Company) ("3M") is a corporation organized and existing under the laws of the state of Delaware, having its principal place of business at 3M Center, St. Paul, Minnesota 55133.

35. Beginning before 1970 and until at least 2002, 3M manufactured, distributed, and sold AFFF containing PFOS.

36. 3M was the only company that manufactured or sold AFFF containing PFOS.

37. 3M manufactured and/or distributed and/or sold AFFF foam containing PFOS which was used at the WPAFB and/or FTC.

38. Defendant Tyco Fire Products LP (“Tyco”) is a limited partnership formed in the State of Delaware with its principal place of business at 1400 Pennbrook Parkway, Landsdale, Pennsylvania 19446. Tyco is an indirect subsidiary ultimately wholly owned by Johnson Controls International plc, an Irish public limited company listed on the New York Stock Exchange [NYSE: JCI].

39. Tyco is the successor in interest of The Ansul Company (“Ansul”), having acquired Ansul in 1990. (Ansul and Tyco (as the successor in interest to Ansul), will hereinafter be collectively referred to as “Tyco/Ansul.”)

40. Beginning in or around 1975, Ansul manufactured and/or distributed and sold AFFF that contained fluorocarbon surfactants containing PFOA. After Tyco acquired Ansul in 1990, Tyco/Ansul continued to manufacture, distribute and sell AFFF that contained fluorocarbon surfactants containing PFOA.

41. Tyco/Ansul manufactured and/or distributed and/or sold AFFF foam containing PFOA which was used at the WPAFB and/or FTC.

42. Defendant Chemguard is a Wisconsin corporation with its principal place of business at One Stanton Street, Marinette, Wisconsin 54143.

43. Beginning in or around 1994, Chemguard began manufacturing AFFF that contained PFOA.

44. Chemguard manufactured and/or distributed and/or sold AFFF foam containing PFOA which was used at the WPAFB and/or FTC.

45. Defendant Buckeye Fire Equipment Company (“Buckeye”) is a foreign corporation organized and existing under the laws of the state of Ohio, with its principal place of business at 110 Kings Road, Kings Mountain, North Carolina 28086.

46. Buckeye manufactured, distributed and/or sold AFFF containing PFOA which was used at the WPAFB and/or FTC.

47. Defendant National Foam, Inc. (a/k/a Chubb National Foam) (collectively “National Foam”) is a Delaware corporation, having a principal place of business at 144 Junny Road, Angier, North Carolina 27501.

48. At all times relevant, National Foam designed, manufactured, and sold AFFF used in training operations and for emergency fire-fighting situations including at the WPAFB and/or FTC.

#### **JURISDICTION AND VENUE**

49. This Court has jurisdiction pursuant to 28 U.S.C. § 1332 (a) because the parties are diverse and the amount in controversy exceeds \$75,000.

50. This Court has jurisdiction over Defendants because, based on information and belief, each is a corporation or other business that has sufficient minimum contacts in Ohio or otherwise intentionally avails itself of the Ohio market either through the distribution or sale of AFFF products in the State of Ohio so as to render the exercise of jurisdiction over it by this Court consistent with tradition notions of fair play and substantial justice.

51. Venue is proper in this District under 28 U.S.C. § 1391(b)(2) because the events, omissions and harms that are the basis of Plaintiff’s claims occurred in substantial party in this District.



**FACTUAL ALLEGATIONS AS TO ALL COUNTS**

**A. Background of PFOA and PFOS and The Known Risk to Groundwater.**

52. Poly- and per-fluoroalkyl substances are chemical compounds containing fluorine and carbon atoms. These substances have been used for decades in the manufacture of, among other things, household and commercial products that resist heat, stains, oil, and water. These substances are not naturally occurring and must be manufactured.

53. The two most widely studied types of these substances are PFOA and PFOS, which each contain eight carbon atoms.

54. PFOA and PFOS have unique properties that cause them to be: (i) mobile and persistent, meaning that they readily spread into the environment where they break down very slowly; (ii) bioaccumulative and biomagnifying, meaning that they tend to accumulate in organisms and up the food chain; and (iii) toxic, meaning that they pose serious health risks to humans and animals. Because PFOA and PFOS have these properties, they pose significant threats to public health and the environment.

55. PFOA and PFOS easily dissolve in water, and thus they are mobile and readily spread in the environment. PFOA and PFOS also readily contaminate soils and leach from the soil into groundwater, where they can travel significant distances.

56. PFOA and PFOS are characterized by the presence of multiple carbon-fluorine bonds, which are exceptionally strong and stable. As a result, PFOA and PFOS are thermally, chemically, and biologically stable and they resist degradation due to light, water, and biological processes.

57. Bioaccumulation occurs when an organism absorbs a substance at a rate faster than the rate at which the substance is lost by metabolism and excretion. Biomagnification occurs when

the concentration of a substance in the tissues of organisms increases as the substance travels up the food chain.

58. PFOA and PFOS bioaccumulate/biomagnify in numerous ways. First, they are relatively stable once ingested, so that they bioaccumulate in individual organisms for significant periods of time. Because of this stability, any newly ingested PFOA and PFOS will be added to any PFOA and PFOS already present. In humans, PFOA and PFOS remain in the body for years.

59. Third, they biomagnify up the food chain, such as when humans eat fish that have ingested PFOA or PFOS.

60. Exposure to PFOA and PFOS can be toxic and may pose serious health risks to humans and to animals. Human health effects associated with PFOA exposure include kidney and testicular cancer, thyroid disease, high cholesterol, ulcerative colitis, liver damage, and pregnancy-induced hypertension (also known as preeclampsia). Human health effects associated with PFOS exposure include immune system effects, changes in liver enzymes and thyroid hormones, low birthweight, high uric acid, and high cholesterol. In laboratory testing on animals, PFOA and PFOS have caused the growth of tumors, changed hormone levels, and affected the function of the liver, thyroid, pancreas, and immune system.

**B. Defendants' Development of AFFF Products Containing PFOA and/or PFOS**

61. In the 1940s, 3M began using a process called electrochemical fluorination to create carbon-fluorine bonds, which are key components of PFOA and PFOS. 3M soon discovered that these types of substances have strong surfactant properties, meaning that they reduce the surface tension between a liquid and another liquid or solid. This reduced surface tension enabled 3M to develop a myriad of products that resist heat, stains, oil, and water. These products included older

forms of Scotch Gard, which contained PFOS and when applied to fabric, furniture, and carpets protected against liquids and stains.

62. Building on these earlier experiments, in the early 1960s 3M began developing firefighting foams containing PFOS to suppress flammable liquid fires, which cannot be effectively extinguished with water alone.

63. AFFF does not have the same problems that water alone does in extinguishing flammable liquid fires. AFFF concentrate containing PFOA or PFOS forms foam when it is mixed with water and ejected from a nozzle. That foam is then sprayed so that it coats the fire, blocking the supply of oxygen feeding the fire and creating a cooling effect and evaporation barrier to extinguish the vapors on fire. A film also forms to smother the fire after the foam has dissipated.

**C. Defendants' Knowledge of the Threats to Public Health and the Environment Posed by PFOA and PFOS**

64. On information and belief, by at least the 1970s 3M knew or should have known that PFOA and PFOS are mobile and persistent, bioaccumulative and biomagnifying, and toxic.

65. Upon information and belief, 3M concealed from the public and government agencies its knowledge of the risk of harm posed by PFOA and PFOS.

66. In 1975, 3M concluded that PFOS was present in the blood of the general population. Since PFOA and PFOS are not naturally occurring, this finding should have alerted 3M to the possibility that their products were a source of this PFOS. The finding also should have alerted 3M to the possibility that PFOS might be mobile, persistent, bioaccumulative, and biomagnifying, as those characteristics could explain the absorption of PFOS in blood from 3M's products.

67. In 1976, 3M found PFOA in the blood of its workers. This finding should have alerted 3M to the same issues raised by the findings regarding PFOS in the prior year.

68. A 1978 study by 3M showed that PFOA reduced the survival rate of fathead minnow fish eggs.

69. Other studies by 3M in 1978 showed that PFOS and PFOA are toxic to rats, and that PFOS is toxic to monkeys. In one study in 1978, all monkeys died within the first few days of being given food contaminated with PFOS.

70. Studies by 3M after the 1970s also showed adverse effects from exposure to PFOA and PFOS.

71. In a 1983 study, for example, 3M found that PFOS caused the growth of cancerous tumors in rats.

72. A study proposal by 3M in 1983 stated that the resistance to degradation of PFOA and PFOS made them "potential candidates for environmental regulations, including further testing requirements under laws such as the Toxic Substances Control Act." 3M Environmental Laboratory (EE & PC), Fate of Fluorochemicals - Phase II, at p.6 (E. A. Reiner, ed. May 20, 1983).

73. A 1997 material safety data sheet ("MSDS") for a non-AFFF product made by 3M listed its only ingredients as water, PFOA, and other per-fluoroalkyl substances and warned that the product includes "a chemical which can cause cancer." The MSDS cited "1983 and 1993 studies conducted jointly by 3M and DuPont" as support for this statement. On information and belief, 3M's MSDSs for AFFF did not provide similar warnings.

74. Federal law requires chemical manufacturers and distributors to immediately notify the United States Environmental Protection Agency ("EPA") if they have information that "reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment." Toxic Substances Control Act ("TSCA") § 8(e), 15 U.S.C. § 2607(e).

75. 3M did not comply with its duty under TSCA, and in April 2006 it agreed to pay EPA a penalty of more than \$1.5 million for its failure to disclose studies regarding PFOA or PFOS and other per-fluoroalkyl substances dating back decades, among other things.

76. On information and belief, all defendants knew or should have known that in its intended and/or common use, AFFF containing PFOA or PFOS would very likely injure and/or threaten public health and the environment. On information and belief, this knowledge was accessible to all defendants. For example, in 1970 a well-established firefighting trade association was alerted to the toxic effects on fish of a chemical compound related to PFOS. On information and belief, at least the following defendants are and/or were members of this trade association: 3M, Tyco/Ansul, Chemguard, and National Foam/Angus.

77. Additionally, on information and belief, all defendants knew or should have known that their AFFF products and the PFOA and PFOS the products contained, easily dissolve in water, because the products were designed to be mixed with water; are mobile, because the products were designed to quickly form a thin film; resist degradation, because that is the nature of the products' chemical composition, and on information and belief the products had long shelf-lives; and tend to bioaccumulate, because studies regarding the presence of substances with carbon-fluorine bonds in the blood of the general population were publicly available beginning in at least 1976.

**D. Evolving Understanding of the Levels of Acceptably Safe Exposure to PFOA/S**

78. As discussed above, neither 3M nor, on information and belief, the other defendants, complied with their obligations to notify EPA about the "substantial risk of injury to health or the environment" posed by their AFFF products containing PFOA/S. See TSCA § 8(e).

79. In or around 1998, EPA began investigating the safety of PFOA and PFOS after some limited disclosures by 3M and others.

80. Beginning in 2009, EPA issued health advisories about the levels of exposure to PFOA and PFOS in drinking water that it believed were protective of public health. As described on EPA's website, "health advisories are non-enforceable and non-regulatory and provide technical information to states [,] agencies and other health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination." *Drinking Water Health Advisories for PFOA and PFOS, What's A Health Advisory*, available at <https://www.epa.gov/ground-water-and-drinking-water/drinking-waterhealth-advisories-pfoa-and-pfos> (last visited June 5, 2018).

81. The recommendations in EPA's health advisories evolved as EPA learned more about PFOA and PFOS.

82. On January 8, 2009 EPA issued Provisional Health Advisories for PFOA and PFOS, advising that "action should be taken to reduce exposure" to drinking water containing levels of PFOA and PFOS exceeding 400 parts per trillion ("ppt") and 200 ppt, respectively. Provisional Health Advisories for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), available at <https://www.epa.gov/sites/production/files/2015-09/documents/pfoa-pfos-provisional.pdf>, at p. 1, n. 1 (last visited June 5, 2018).

83. On or around May 19, 2016, the EPA issued updated Drinking Water Health Advisories for PFOA and PFOS, recommending that drinking water concentrations for PFOA and PFOS, either singly or combined, should not exceed 70 ppt. See Lifetime Health Advisories and Health Effects Support Documents for PFOA and PFOS, 81 Fed. Reg. 33,250-51 (May 25, 2016).

#### **E. The Use of Defendants' AFFF Products Containing PFOA/S in Ohio**

84. Defendants' AFFF products containing PFOA/S have been used for decades throughout Ohio at civilian airports and other facilities, including the WPAFB and FTC.

85. On information and belief, defendants manufactured and sold AFFF products containing PFOA and PFOS that were used and discharged at the WPAFB and FTC.

86. Pursuant to Federal Aviation Administration (“FAA”) regulations, airport staff were required to perform a AFFF foam test twice a year. During these tests, typically one or two buckets of foam (about 5-10 gallons) were discharged from each piece of equipment to get a reading of the percentage of the mix coming out of each nozzle.

87. Due to the Defendants’ failure to warn and advise the user that the AFFF should not be permitted to enter the soil, water, or groundwater, the AFFF was left to enter into the soil or simply washed off the tarmac.

88. Defendants failed to warn the end user and sensitive receptors, such as public water suppliers, that AFFF permeates through the ground to the groundwater.

89. Defendants further failed to warn the end user that the AFFF soaks into the concrete or asphalt tarmac to slowly release PFOA and PFOS into the subsurface and groundwater over decades.

90. Sampling results of surface water, groundwater, and soil, at or near the WPAFB and FTC demonstrate the presence of elevated concentrations of PFOA and PFOS, which were components in Defendants’ AFFF products.

91. On information and belief, Defendants did not provide adequate warnings regarding the public health and environmental hazards associated with their AFFF products containing PFOA and PFOS. Nor did Defendants provide adequate instructions about how to avoid or mitigate such hazards.

92. Defendants' AFFF products were used in the normal, intended, and foreseeable manner that resulted in the discharge of PFOA and PFOS into the environment and drinking water supplies of the City.

**F. AFFF Containing PFOA and PFOS Is Fungible and Commingled in the Groundwater**

93. AFFF containing PFOA and/or PFOS, once it has been released to the environment and groundwater, lacks characteristics that would enable identification of the company that manufactured that particular AFFF.

94. The process of manufacture and distribution of AFFF, including that which contains PFOA and/or PFOS, sometimes includes complex arrangements whereby Defendants sell product for delivery through specific military bases and/or third-party logistic intermediaries throughout the country.

95. A subsurface plume, even if it comes from a single location, such as a retention fire training area, most likely originates from mixed batches of AFFF coming from different manufacturers.

96. There were several areas located around the WPAFB where firefighting exercises were historically conducted, as well as the FTC, where AFFF was used and entered the groundwater and it is not possible to determine the identity of the manufacturer whose AFFF containing PFOA and PFOS contributed to the groundwater contamination plume impacting Plaintiff's Huffman Dam and Tait's Hill.

97. Because precise identification of the specific manufacture of any given AFFF that was the source of PFOA and PFOS found in Plaintiff's Supply Wells is impossible, Plaintiff must pursue all Defendants, jointly and severally, for those indivisible injuries which Defendants have collectively visited upon Plaintiff.



98. Defendants are also jointly and severally liable because they conspired to conceal the true toxic nature of PFOS and PFOA, to profit from the use of AFFF containing PFOA and PFOS, at Plaintiff's expense, to contaminate Plaintiff's water supply, and to attempt to avoid liability for such contamination of the groundwater.

**G. Alternative Liability, Concert of Action, Enterprise Liability.**

99. Defendants in this action are manufacturers that control a substantial share of the market for AFFF-containing PFOA and/or PFOS in the United States and are jointly responsible for the contamination of Plaintiff's groundwater supply and for causing the damages and injuries complained of in this Complaint.

100. Enterprise liability attaches to all Defendants and the liability of each should be assigned according to its percentage of liability for AFFF-containing PFOA and/or PFOS at issue in this Complaint. PFOA and PFOS is fungible; it is impossible to identify the exact Defendant who manufactured any given batch of AFFF containing PFOA and/or PFOS found free in the groundwater, and, each of these Defendants participated in a state-wide and national market for AFFF containing PFOA and/or PFOS during the relevant time.

101. Concert of action liability attaches to all Defendants, each of which participated in a common plan to commit the torts alleged herein and each of which acted tortuously in pursuance of the common plan to knowingly manufacture and sell inherently dangerous AFFF-containing PFOA and/or PFOS.

102. Enterprise liability attaches to all of the named Defendants for casting defective products into the stream of commerce.

**COUNT I  
STRICT LIABILITY – DESIGN DEFECT AND/OR DEFECTIVE PRODUCT  
PURSUANT TO OHIO REV. CODE § 2307.75**

103. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraphs as if fully stated herein.

104. Defendants' AFFF was defective in design or formulation pursuant to Ohio Rev. Code § 2307.75.

105. As commercial designers, manufacturers, distributors, suppliers, sellers, and/or marketers of AFFF containing PFOA and PFOS, Defendants had a strict duty not to place into the stream of commerce a product that is unreasonably dangerous.

106. Defendants knew that third parties would purchase AFFF containing PFOA and PFOS and use it without inspection for defects.

107. At the time of manufacture, Defendants knew that the chosen formulation of AFFF, which included PFOA/PFOS, was not biodegradable and bioaccumulated in fish, wildlife, and humans.

108. AFFF containing PFOA/PFOS purchased or otherwise acquired (directly or indirectly) from Defendants by third parties were applied, discharged, disposed of, or otherwise released onto lands and/or water in the vicinity of Plaintiff's water production wells, including but not limited to the WPAFB and FTC. Such discharges occurred at various locations, at various times, and in various amounts.

109. The AFFF containing PFOA/PFOS purchased by third parties was used in a reasonably foreseeable manner and without substantial change in the condition of such products.

110. Defendants knew or reasonably should have known that the use of AFFF containing PFOA and PFOS in its intended manner would foreseeably result in the spillage, discharge, disposal, or release of AFFF onto land or into groundwater supplies.

111. The AFFF containing PFOA and PFOS used in the vicinity of Plaintiff's water production wells was defective in design and unreasonably dangerous because, among other things:

- a. PFOA and PFOS causes extensive and persistent groundwater contamination when it, or products containing it, are used in their foreseeable and intended manner.
- b. PFOA and PFOS contamination in drinking water poses significant threats to public health and welfare.
- c. Defendants failed to conduct and/or failed to disclose reasonable, appropriate, or adequate scientific studies to evaluate the environmental fate and transport and potential human health effects of PFOA and PFOS.

112. At all times relevant to this action, AFFF containing PFOA and PFOS was dangerous to an extent beyond that which would be contemplated by the ordinary consumer, and/or the foreseeable risk of harm to public health and welfare posed by PFOA and PFOS outweighed the cost to Defendants of reducing or eliminating such risk.

113. Defendants knew or should have known about feasible alternatives to producing AFFF without the use of PFOA and PFOS, and the omission of such alternative designs rendered AFFF not reasonably safe.

114. As a direct and proximate result of the defects previously described, Plaintiff's supply wells have been, and continue to be, contaminated with PFOA/PFOS in varying amounts over time, causing Plaintiff significant injury and damage.

115. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFOA/PFOS contamination of its wells in an amount to be proved at trial.

116. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFOA and PFOS contamination of groundwater. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in

conscious disregard of the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

117. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

**COUNT II**  
**STRICT LIABILITY- FAILURE TO WARN**  
**PURSUANT TO OHIO REV. CODE § 2307.76**

118. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

119. As commercial distributors, sellers, manufacturers, suppliers, marketers, and/or designers of AFFF, Defendants had a strict duty to warn against latent dangers resulting from foreseeable uses of the product that Defendants knew or should have known about.

120. At the time of marketing, when the AFFF left control of the Defendants, Defendants knew, or in the exercise of reasonable care, should have known that the AFFF was not biodegradable, and that it bioaccumulated in fish, wildlife and humans, and knew they were providing an inadequate warning or instruction about the inherent danger of allowing the AFFF to be dumped on the ground where by runoff or permeation through the ground it would infiltrate groundwater.

121. Defendants knew that third parties would purchase AFFF containing PFOA and PFOS and expect that it was biodegradable and use it at the Fire Training Facility and WPAFB, both locations where runoff would permeate into the Mad River Well Field areas.

122. AFFF containing PFOA/PFOS purchased or otherwise acquired (directly or indirectly) from Defendants by third parties was applied, discharged, disposed of, or otherwise

released at various locations, at various times, and in various amounts onto the lands and/or water in the vicinity of Plaintiff's drinking water production wells.

123. The AFFF containing PFOA and PFOS purchased by third parties was used in a reasonably foreseeable manner and without substantial change in the condition of such products.

124. Defendants knew or should have known that the use of AFFF containing PFOA/PFOS in its intended manner would result in the discharge, disposal, or release of PFOA/PFOS onto land and into groundwater.

125. The AFFF containing PFOA and PFOS used in the vicinity of Plaintiff's Fire Training Center was defective in design and unreasonably dangerous for the reasons set forth above.

126. Despite the known and/or reasonably foreseeable hazards to human health and welfare associated with the use of AFFF containing PFOA and PFOS in the vicinity of Plaintiff's water production wells, including contamination of public drinking water wells with PFOA/PFOS, Defendants failed to provide adequate warnings of, or take any other precautionary measures to mitigate, those hazards.

127. In particular, Defendants failed to describe such hazards or provide any precautionary statements regarding such hazards in the labeling of their AFFF products containing PFOA/PFOS or otherwise.

128. As a direct and proximate result of Defendants' failure to warn of the hazards posed by disposal or release of AFFF containing PFOA/PFOS in the vicinity of subterranean public drinking water wells that were, or reasonably should have been, known to them, PFOA and/or PFOS contaminated Plaintiff's supply wells.

129. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFOA and/or PFOS contamination of its wells in an amount to be proved at trial.

130. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFOA and PFOS contamination of water supply wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

131. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

### **COUNT III NEGLIGENCE**

132. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

133. As commercial distributors, sellers, manufacturers, suppliers, marketers, and/or designers, Defendants owed a duty of care to Plaintiff not to place into the stream of commerce a product, AFFF, that was in a defective condition and unreasonably dangerous to groundwater.

134. Defendants breached this duty by negligently designing, formulating, manufacturing, distributing, selling, supplying, and/or marketing such unreasonably dangerous products into the stream of commerce, including for use at the WPAFB and FTC, even when they knew or should have known of the dangers PFOA and PFOS posed to public drinking water wells.

135. Among other things, Defendants breached this duty when they manufactured, marketed, distributed, supplied, and sold AFFF even though they knew or should have known of the dangers that PFOA and PFOS posed to groundwater. Defendants should have known that the manner in which they were manufacturing, marketing, and selling AFFF containing PFAS compounds, like PFOS and PFOA, would result in the contamination of the public supply water wells, including Plaintiff's Mad River Well Field areas at Huffman Dam and Tait's Hill.

136. Defendants knew or should have known that exposure to PFOA and PFOS was hazardous to the environment and to human health.

137. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFOA and PFOS contamination of its Supply Wells in an amount to be proved at trial.

138. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFOA and PFOS contamination of public groundwater supply wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

139. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

**COUNT IV  
PUBLIC NUISANCE**

140. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

141. Plaintiff provides drinking water to its residents to from its groundwater supply wells that is used for drinking, bathing, cleaning, washing, cooking, watering vegetables, and other uses.

142. Because Plaintiff is a public entity, the water it provides to its residential and commercial customers is a public and commonly held resource. Members of the public have a right to have their water remain clean, safe, and free of Defendants' toxic contamination.

143. Defendants' acts and omissions, including their manufacture, sale, supply, marketing, and defective design of, and/or failure to warn regarding PFOA and/or PFOS in AFFF contaminated Plaintiff's wells, rendering water served from them unfit for human consumption and a public health hazard.

144. Consequently, Defendants substantially interfered with and caused damage to a public or common resource that endangered public property, as well as the health, safety, and comfort of a considerable number of persons. Such action creates, contributes to, or maintains a public nuisance.

145. As an owner of water production wells and purveyor of drinking water, Plaintiff suffers injuries different in kind from the community at large because it relies entirely upon its water production wells for its public service functions.

146. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFOA and PFOS contamination of the groundwater supply. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to



promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

147. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

**COUNT V  
PRIVATE NUISANCE**

148. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

149. Plaintiff is the owner of land, easements, and water rights that permit it to extract groundwater for use in its wells to provide drinking water to its customers.

150. Defendants' intentional, negligent, and/or reckless conduct, as alleged herein, has resulted in substantial contamination of Plaintiff's supply wells by PFOA and PFOS, human carcinogens that cause adverse human health effects and render water undrinkable.

151. Defendants' manufacture, distribution, sale, supply, and marketing of AFFF containing PFOA/PFOS was unreasonable because Defendants had knowledge of PFOA and PFOS's unique and dangerous chemical properties and knew that contamination of public groundwater supply wells was substantially certain to occur, but failed to provide adequate warnings of, or take any other precautionary measures to mitigate, those hazards.

152. The contamination caused, contributed to, and/or maintained by Defendants substantially and unreasonably interferes with Plaintiff's property rights to appropriate, use, and enjoy water from its wells in Huffman Dam and Tait's Hill portions of the Mad River Well Field.

153. Each defendant has caused, contributed to, and/or maintained such nuisance, and is a substantial contributor to such nuisance.

154. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to PFOA and PFOS contamination of Huffman Dam and Tait's Hill portions of the Mad River Well Field in an amount to be proved at trial.

155. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFOA and PFOS contamination of Plaintiff's groundwater supply. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

156. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

#### **COUNT VI TRESPASS**

157. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

158. Plaintiff owns and possesses its drinking water production system, including drinking water production wells that extract groundwater in Montgomery County, Ohio. Plaintiff actually and actively exercises its rights to appropriate and use groundwater drawn from its wells, including from Huffman Dam and Tait's Hill portions of the Mad River Well Field.

159. Plaintiff did not give any Defendant permission to cause PFOA or PFOS to enter its groundwater wells.

160. Defendants knew or reasonably should have known that:

- a. PFOA and PFOS have a propensity to infiltrate groundwater aquifers when released to the environment;
- b. PFOA and PFOS are mobile and persistent groundwater contaminants capable of moving substantial distances within aquifers;
- c. They are toxic to human health; and
- d. They are therefore hazardous to public water systems and human health and welfare.

161. Defendants manufactured, promoted, marketed, distributed, and/or sold AFFF containing PFOA and PFOS, which Defendants knew or reasonably should have known would virtually certainly be discharged and release toxic PFOA and PFOS into the ground and intrude upon, contaminate, and damage Plaintiff's possessory interest.

162. Defendants' willful conduct directly resulted in the placement of its product, AFFF, on and in property owned by Plaintiff without permission or right of entry.

163. Each Defendant is a substantial factor in bringing about the contamination of Plaintiff's wells, and each Defendant aided and abetted the trespasses and is jointly responsible for the injuries and damage caused to Plaintiff.

164. As a direct and proximate result of Defendants' acts and omissions resulting in PFOA and PFOS entering Plaintiff's Water wells at Huffman Dam and Tait's Hill portions of the Mad River Well Field, Plaintiff sustained actual injuries and damages related to the PFOA and/or PFOS contamination of its wells in an amount to be proved at trial.

165. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including PFOA and PFOS contamination of the public

groundwater supply. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of AFFF, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

166. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

**COUNT VII  
ALTERNATIVE LIABILITY, CONCERT OF ACTION,  
ENTERPRISE LIABILITY**

167. Plaintiff realleges and reaffirms each and every allegation set forth in all preceding paragraphs as if fully restated herein.

168. Defendants in this action are manufactures, distributors, sellers, suppliers and marketers of AFFF containing PFOA/PFOS that control a substantial share of the market for AFFF in Ohio and are jointly responsible for the increased threat to groundwater in Ohio and for causing the injuries complained of in this Complaint.

169. Advances in science and technology have allowed Defendants to create a fungible good that has been shown to harm Plaintiff and its customers and which cannot be traced to any specific producer.

170. AFFF containing PFOA and PFOS is fungible once it is in the groundwater. It is impossible to identify the exact commercial entity that manufactured any given batch of PFOS and/or PFOA found free in the environment; and, each of these Defendants participated in a state-wide and national market for AFFF containing PFOA and PFOS during the relevant time in Dayton, Ohio.

171. Concert of action liability attaches to Defendants each of which participated in a common plan to commit the intentional torts alleged herein and each of which acted tortiously in pursuance of the common plan.

172. Defendants in this action acted in concert to transport, distribute, supply, sell and/or market AFFF containing PFOA and PFOS as a safe and effective product for use by the public.

173. Enterprise liability attaches to the named Defendants.

174. Because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the Plaintiff, Plaintiff is entitled to punitive damages.

#### **PRAYER FOR RELIEF**

**WHEREFORE**, the City of Dayton prays for a judgment against these Defendants for:

1. Dayton is not asking for any equitable or injunctive relief, but compensatory damages only;
2. Compensatory damages in an amount to be demonstrated and proven at trial but which is:
  - a. Above the jurisdictional minimum of this court on the First Cause of Action;
  - b. Above the jurisdictional minimum of this court on the Second Cause of Action;
  - c. Above the jurisdictional minimum of this court on the Third Cause of Action; and
  - d. Above the jurisdictional minimum of this court on the Fourth Cause of Action;
  - e. Above the jurisdictional minimum of this court on the Fifth Cause of Action;
  - f. Above the jurisdictional minimum of this court on the Sixth Cause of Action; and
  - g. Above the jurisdictional minimum of this court on the Seventh Cause of Action;
3. Punitive damages in an amount to be determined at trial;
4. Interest on the damages according to law;

5. Costs, disbursements and attorneys' fees of this lawsuit; and
6. Any other and further relief as the Court deems just, proper and equitable.

**JURY DEMAND**

Plaintiff demands a trial by jury of all claims asserted in this Complaint.

Dated: October 3, 2018

Respectfully submitted,

**CITY OF DAYTON**

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